

7.3.2 UE recognising the priority order of the User controlled PLMN selector over the Operator controlled PLMN selector list.

7.3.2.1 Definition and applicability

The User controlled PLMN selector list has a higher priority as the OPLMN selector list on which the UE shall register. The Radio Access Technology identifier defines the Radio network in which the UE shall register. The list is stored on the USIM in the $EF_{PLMNwACT}$.

The registration attempts initiated by the UE depends on UEs capabilities and can be one of the following:

- I. registration procedures for UEs supporting CS or
- II. registration procedures for UEs supporting PS or
- III. registration procedures for UEs supporting CS/PS

This test applies to Terminals accessing UTRAN.

7.3.2.2 Conformance requirement

When registering onto a VPLMN the UE shall take into account the priority of UPLMNs first before the OPLMNs in the preferred list on the USIM.

- TS 22.011, subclause 3.2.2.2;
- TS 31.102, subclauses 4.2.5 and 4.2.53.

7.3.2.3 Test purpose

To verify that the User controlled PLMN with a lower priority (defined by its position in $EF_{PLMNwACT}$) takes precedence over the OPLMN with a higher priority when the UE performs a network selection.

7.3.2.4 Method of test

7.3.2.4.1 Initial conditions

For this test a USS is needed.

The USS transmits on two BCCHs, with the following network parameters:

- Attach/detach: disabled.
- LAI (MCC/MNC/LAC): 254/001/0001.
- RAI (MCC/MNC/LAC/RAC): 254/001/0001/05.
- Access control: unrestricted.
- Attach/detach: disabled.
- LAI (MCC/MNC/LAC): 244/010/0001.
- RAI (MCC/MNC/LAC/RAC): 244/010/0001/05.
- Access control: unrestricted.

The default UICC is used with the following exception:

EF_{UST} (USIM Service Table)

Logically: Local Phone Book available
 User controlled PLMN selector available

Fixed dialling numbers available
 Barred dialling numbers available
 The GSM Access available
 The Group Identifier level 1 and level 2 not available
 Service n 33 (Packed Switched Domain) shall be set to '1'
 Enabled Services Table available
 Operator controlled PLMN selector available

Coding:	B1	B2	B3	B4	B5	B6
binary	xx1x xx11	xxxx xxxx	xxxx 1x00	xxxx x1xx	xxxx xx11	xxxx xx1x

The coding of EF_{UST} shall conform with the capabilities of the USIM used.

The UICC is installed into the Terminal and the UE is set to automatic PLMN selection mode.

7.3.2.4.2 Procedure

- a) The UE is powered on.
- b) After receipt on the cell related to the BCCH transmitting MCC/MNC 244/010 of a RRC CONNECTION REQUEST from the UE, the USS sends RRC CONNECTION SETUP to the UE, followed by RRC CONNECTION SETUP COMPLETE sent by the UE to the USS.
- c) Depending on which domain the UE is going to be registered on , one of the following requirements should be fulfilled:

- I. During registration on CS and afterAfter receipt of a LOCATION UPDATEING REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATEING ACCEPT with the following values :

LAI (MCC/MNC/LAC): 244/010/0001

TMSI: "34567890"

- II. During registration on PS and after receipt of a ATTACH REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends ATTACH ACCEPT with the following values :

RAI (MCC/MNC/LAC/RAC) 244/010/0001/05

P-TMSI "34567890"

P-TMSI signature value "AB1234"

- III. During registration on CS/PS and after receipt of a LOCATION UPDATING REQUEST and/or ATTACH REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT with some of the following values :

LAI (MCC/MNC/LAC): 244/010/0001

TMSI: "34567890"

RAI (MCC/MNC/LAC/RAC) 244/010/0001/05

P-TMSI "34567890"

P-TMSI signature value "AB1234"

- d) After receipt of a
 - I. TMSI REALLOCATION COMPLETE during registration on CS from the UE, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS.
 - II. ATTACH COMPLETE during registration on PS from the UE, the USS sends RRC CONNECTION RELEASE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.
 - III. TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE during registration on CS/PS from the UE, the USS sends RRC CONNECTION RELEASE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS.
- e) The UE is soft powered down.

7.3.2.5 Acceptance criteria

- 1) After step a) the UE shall send an RRC CONNECTION REQUEST on the cell related to the BCCH transmitting MCC/MNC 244/010 to the USS.
- 2) After step b) the UE shall send
 - I. LOCATION UPDATING REQUEST to the USS during registration on CS or
 - II. ATTACH REQUEST during registration on PS or
 - III. LOCATION UPDATING REQUEST and/or ATTACH REQUEST to the USS during registration on CS/PS.
- 3) After step c) the UE shall respond with
 - I. TMSI REALLOCATION COMPLETE during registration on CS or
 - II. ATTACH COMPLETE during registration on PS or
 - III. TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE to the USS during registration on CS/PS.
- 4) After step e) the USIM shall contain the following values:

For UEs supporting (CS and PS) or (CS only):

EF_{LOCI} (Location Information)

Logically: LAI-MCC: 244
 LAI-MNC: 010
 TMSI: "34567890"

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
	34	56	78	90	42	04	10	xx	xx	xx	00

For UEs supporting (CS and PS) or (PS only):

EF_{PSLOCI} (Location Information)

Logically: RAI-MCC: 244
 RAI-MNC: 010
 P-TMSI: "34567890"

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Hex	34	56	78	90	xx	xx	xx	42	04	10	xx
Coding:	B12	B13	B14								
Hex	xx	xx	00								

7.4 Higher priority PLMN search handling

7.4.1 UE recognising the search period of the Higher priority PLMN

7.4.1.1 Definition and applicability

The Higher priority PLMN list gives in priority order the Higher priority PLMN on which the UE shall register first. The Higher priority PLMN search period gives the time interval in which the UE shall search for a possible Higher priority PLMN registration.

The registration attempts initiated by the UE depends on UEs capabilities and can be one of the following:

- I. registration procedures for UEs supporting CS or
- II. registration procedures for UEs supporting PS or
- III. registration procedures for UEs supporting CS/PS

This test applies to Terminals accessing UTRAN.

7.4.1.2 Conformance requirement

After registered onto a VPLMN the UE shall take into account the Higher priority PLMN search period timer and the priority order of the Higher priority PLMNs in the preferred list on the USIM.

- TS 22.011, subclauses 3.2.2 and 3.2.2.5.
- TS 24.008, subclause 4.7.5

7.4.1.3 Test purpose

To verify that the Higher priority PLMN timer is read and the Higher priority PLMN takes precedence over the VPLMN in which the UE is currently registered in.

7.4.1.4 Method of test

7.4.1.4.1 Initial conditions

For this test a UTRAN USS is needed.

The USS transmits on BCCH, with the following network parameters:

- Attach/detach: disabled.
- LAI (MCC/MNC/LAC): 244/082/0001.
- RAI (MCC/MNC/LAC/RAC): 244/082/0001/05.
- Access control: unrestricted.

After the registration of UE the USS transmits on a second BCCH, with the following network parameters:

- Attach/detach: disabled.

- LAI (MCC/MNC/LAC): 244/081/0001.
- RAI (MCC/MNC/LAC/RAC): 244/081/0001/05.
- Access control: unrestricted.

The default UICC shall be used with the following exception:

EF_{HPPLMN} (Higher Priority PLMN Search period)

Logically: set to 6minutes

Coding: B1
Hex 01

The UICC shall be installed into the Terminal and the UE shall be set to automatic PLMN selection mode.

7.4.1.4.2 Procedure

- a) The UE shall be powered on.
- b) After receipt of a RRC CONNECTION REQUEST from the UE, the USS shall send RRC CONNECTION SETUP to the UE, followed by RRC CONNECTION SETUP COMPLETE sent by the UE to the USS.
- c) Depending on which domain the UE is going to be registered on, one of the following sequences will be passed through:

- I. During registration on CS and after After receipt of a LOCATION UPDATEING REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATEING ACCEPT with the following values to the UE:

LAI (MCC/MNC/LAC): 244/082/0001

TMSI: "34567890"

- II. During registration on PS and after receipt of a ATTACH REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends ATTACH ACCEPT with the following values to the UE:

RAI (MCC/MNC/LAC/RAC) 244/082/0001/05

P-TMSI "34567890"

P-TMSI signature value "AB1234"

- III. During registration on CS/PS and after receipt of a LOCATION UPDATING REQUEST and/or ATTACH REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT with some of the following values to the UE:

LAI (MCC/MNC/LAC): 244/082/0001

TMSI: "34567890"

RAI (MCC/MNC/LAC/RAC) 244/082/0001/05

P-TMSI "34567890"

P-TMSI signature value "AB1234"

- d) Depending on which domain the UE is going to be registered on, one of the following sequences will be passed through:
- I. After receipt of a TMSI REALLOCATION COMPLETE from the UE during registration on CS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.
 - II. After receipt of a ATTACH COMPLETE from the UE during registration on PS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.
 - III. After receipt of a TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE from the UE during registration on CS/PS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS.
- e) The USS starts to send on the second BCCH with the MCC/MNC 244/081. An internal timer shall start to run.
- f) After receipt on the cell related to the BCCH transmitting MCC/MNC 244/081 of a RRC CONNECTION REQUEST from the UE, the USS sends RRC CONNECTION SETUP to the UE, followed by RRC CONNECTION SETUP COMPLETE sent by the UE to the USS. The internal timer is stopped.
- g) Depending on which domain the UE is going to be registered on, one of the following sequences will be passed through:
- I. During registration on CS and after receipt of a LOCATION UPDATING REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATING ACCEPT with the following values to the UE:

LAI (MCC/MNC/LAC): 244/081/0001

TMSI: "12345678"
 - II. During registration on PS and after receipt of a ROUTING AREA UPDATE REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends ROUTING AREA UPDATE ACCEPT with the following values to the UE:

RAI (MCC/MNC/LAC/RAC) 244/081/0001/05

P-TMSI "12345678"

P-TMSI signature value "AB1234"
 - III. During registration on CS/PS and after receipt of a LOCATION UPDATING REQUEST and/or ROUTING AREA UPDATE REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATING ACCEPT and/or ROUTING AREA UPDATE ACCEPT with some of the following values to the UE:

LAI (MCC/MNC/LAC): 244/081/0001

TMSI: "12345678"

RAI (MCC/MNC/LAC/RAC) 244/081/0001/05

P-TMSI "12345678"

P-TMSI signature value "AB1234"
- h) Depending on which domain the UE is going to be registered on, one of the following sequences will be passed through:

- I. After receipt of a TMSI REALLOCATION COMPLETE from the UE during registration on CS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.
 - II. After receipt of a ROUTING AREA UPDATE COMPLETE from the UE during registration on PS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.
 - III. After receipt of a TMSI REALLOCATION COMPLETE and/or ROUTING AREA UPDATE COMPLETE from the UE during registration on CS/PS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS.
- i) The UE is soft powered down.

7.4.1.5 Acceptance criteria

- 1) After step e) the UE shall send an RRC CONNECTION REQUEST on the cell related to the BCCH transmitting MCC/MNC 244/081 to the USS.
 - 2) After step e) the UE shall send
 - I. LOCATION UPDATING REQUEST to the USS during registration on CS or.
 - II. ROUTING AREA UPDATE REQUEST during registration on PS or
 - III. LOCATION UPDATING REQUEST and/or ROUTING AREA UPDATE REQUEST to the USS during registration on CS/PS.
 - 3) After step g) the UE shall respond with
 - I. TMSI REALLOCATION COMPLETE to the USS during registration on CS or
 - II. ROUTING AREA UPDATE COMPLETE during registration on PS or
 - III. TMSI REALLOCATION COMPLETE and/or ROUTING AREA UPDATE COMPLETE to the USS during registration on CS/PS.
 - 4) The value of the internal timer shall not exceed 6 minutes.
- NOTE: To take the systems processing time into account, the value of the internal timer may allowed to be a guard time of 10% greater than the required 6minutes.
- 5) After step i) the USIM shall contain the following values:

For UEs supporting (CS and PS) or (CS only):

EF_{LOCI} (Location Information)

Logically: LAI-MCC: 244
 LAI-MNC: 081
 TMSI: "12345678"

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Hex	12	34	56	78	42	14	80	xx	xx	xx	00

For UEs supporting (CS and PS) or (PS only):

EF_{PSLOCI} (Location Information)

Logically: RAI-MCC: 244
 RAI-MNC: 081
 P-TMSI: "12345678"

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Hex	12	34	56	78	xx	xx	xx	42	14	80	xx
Coding:	B12	B13	B14								
Hex	xx	xx	00								

7.4.2 GSM/UMTS dual mode UEs recognising the search period of the Higher priority PLMN

7.4.2.1 Definition and applicability

The Higher priority PLMN list gives in priority order the Higher priority PLMN on which the UE shall register first. The Radio Access Technology identifier defines the Radio network in which the UE shall register. The list is stored on the USIM in the $EF_{HPLMNwACT}$. The Higher priority PLMN search period gives the time interval in which the UE shall search for a possible Higher priority PLMN registration. This test applies to a GSM/UMTS dual mode UE that supports the Higher priority PLMN selector with Access Technology service. In the case that the terminal has implemented this feature according to Rel-6 or later, this test is optional. .

To avoid a duplication of tests, this test supersede the previous test case (7.4.1).

The registration attempts initiated by the UE depends on UEs capabilities and can be one of the following:

- I. registration procedures for UEs supporting CS or
- II. registration procedures for UEs supporting PS or
- III. registration procedures for UEs supporting CS/PS

7.4.2.2 Conformance requirement

After registered onto a VPLMN the UE shall take into account the Higher priority PLMN search period timer and the priority order of the Higher priority PLMNs in the preferred list on the USIM including the Access Technology Identifier.

- TS 22.011, subclauses 3.2.2 and 3.2.2.5.

7.4.2.3 Test purpose

To verify that the Higher priority PLMN timer is read and the Higher priority PLMN with the higher priority (defined by its position in $EF_{HPLMNwACT}$) takes precedence over the VPLMN in which the UE is currently registered in.

7.4.2.4 Method of test

7.4.2.4.1 Initial conditions

For this test both a GSM SS and a UTRAN USS is needed.

The GSM SS transmits on BCCH, with the following network parameters:

- Attach/detach: disabled.
- LAI (MCC/MNC/LAC): 244/082/0001.
- Access control: unrestricted.

After the registration of UE the GSM SS transmits on a second BCCH, with the following network parameters:

- Attach/detach: disabled.

- LAI (MCC/MNC/LAC): 244/081/0001.
- Access control: unrestricted.

At the same time as the SS sends on a second BCCH, the UMTS USS transmit on BCCH, with the following network parameters:

- Attach/detach: disabled.
- LAI (MCC/MNC/LAC): 244/081/0001.
- RAI (MCC/MNC/LAC/RAC): 244/081/0001/05.
- Access control: unrestricted.

The default UICC is used with the following exceptions:

EF_{HPLMNwACT} (HPLMN selector with Access Technology)

Logically: Set to MCC 244 and MNC 081
Set to UTRAN

Coding:	B1	B2	B3	B4	B5
Hex	42	14	80	80	00

EF_{HPPLMN} (Higher Priority HPLMN Search period)

Logically: set to 6minutes

Coding:	B1
Hex	01

EF_{UST} (USIM Service Table)

Logically: Local Phone Book available
User controlled PLMN selector available
Fixed dialling numbers available
Barred dialling numbers available
The GSM Access available
The Group Identifier level 1 and level 2 not available
Service n 33 (Packed Switched Domain) shall be set to '1'
Enabled Services Table available
HPLMN selector with access technology available

Coding:	B1	B2	B3	B4	B5	B6
binary	xx1x xx11	xxxx xxxx	xxxx 1x00	xxxx x1xx	xxxx xx11	xxxx x1xx

The UICC is installed into the Terminal and the UE is set to automatic PLMN selection mode.

7.4.2.4.2 Procedure

- The UE is powered on.
- After receipt of a CHANNEL REQUEST from the UE, the SS sends IMMEDIATE ASSIGNMENT to the UE.
- After receipt of a LOCATION UPDATE REQUEST from the UE, the SS sends LOCATION UPDATE ACCEPT with:

LAI (MCC/MNC): 244/082
TMSI: "34567890"

to the UE.

- d) After receipt of a TMSI REALLOCATION COMPLETE from the UE, the SS sends CHANNEL RELEASE to the UE.
- e) The SS starts to send on the second BCCH with the MCC/MNC 244/081 and the USS starts to send with the Same MCC/MNC. An internal timer shall start to run.
- f) After receipt on the UTRAN-cell related to the BCCH transmitting MCC/MNC 244/081 of a RRC CONNECTION REQUEST from the UE, the USS sends RRC CONNECTION SETUP to the UE, followed by RRC CONNECTION SETUP COMPLETE sent by the UE to the USS. The internal timer is stopped.
- g) Depending on which domain the UE is going to be registered on, one of the following sequences will be passed through:
 - I. During registration on CS and after receipt of a LOCATION UPDATING REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATING ACCEPT with the following values to the UE:

LAI (MCC/MNC/LAC): 244/081/0001

TMSI: "12345678"

- II. During registration on PS and after receipt of a ATTACH REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends ATTACH ACCEPT with the following values to the UE:

RAI (MCC/MNC/LAC/RAC) 244/081/0001/05

P-TMSI "12345678"

P-TMSI signature value "AB1234"

- III. During registration on CS/PS and after receipt of a LOCATION UPDATING REQUEST and/or ATTACH REQUEST from the UE, the USS initiates authentication, starts integrity by using the security procedure and sends LOCATION UPDATING ACCEPT and/or ATTACH ACCEPT with some of the following values to the UE:

LAI (MCC/MNC/LAC): 244/081/0001

TMSI: "12345678"

RAI (MCC/MNC/LAC/RAC) 244/081/0001/05

P-TMSI "12345678"

P-TMSI signature value "AB1234"

- h) Depending on which domain the UE is going to be registered on, one of the following sequences will be passed through:
 - I. After receipt of a TMSI REALLOCATION COMPLETE from the UE during registration on CS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.
 - II. After receipt of a ATTACH COMPLETE from the UE during registration on PS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS or.

III. After receipt of a TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE from the UE during registration on CS/PS, the USS sends RRC CONNECTION RELEASE to the UE, followed by RRC CONNECTION RELEASE COMPLETE sent by the UE to the USS.

i) The UE is soft powered down.

7.4.2.5 Acceptance criteria

- 1) After step e) the UE shall send an RRC CONNECTION REQUEST on the UTRAN-cell related to the BCCH transmitting MCC/MNC 244/081 to the USS.
- 2) After step e) the UE shall send
 - I. LOCATION UPDATING REQUEST to the USS during registration on CS, or
 - II. ATTACH REQUEST during registration on PS or
 - III. LOCATION UPDATING REQUEST and/or ATTACH REQUEST to the USS during registration on CS/PS.
- 3) After step g) the UE shall respond with
 - I. TMSI REALLOCATION COMPLETE to the USS during registration on CS, or
 - II. ATTACH COMPLETE during registration on PS or
 - III. TMSI REALLOCATION COMPLETE and/or ATTACH COMPLETE to the USS during registration on CS/PS.
- 4) The value of the internal timer shall not exceed 6 minutes.

NOTE: To take the systems processing time into account, the value of the internal timer may allowed to be a guard time of 10% greater than the required 6minutes.

5) After step i) the USIM shall contain the following values:

For UEs supporting (CS and PS) or (CS only):

EF_{LOCI} (Location Information)

Logically: LAI-MCC: 244
LAI-MNC: 081
TMSI: "12345678"

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Hex	12	34	56	78	42	14	80	xx	xx	xx	00

For UEs supporting (CS and PS) or (PS only):

EF_{PSLOCI} (Location Information)

Logically: RAI-MCC: 244
RAI-MNC: 081
P-TMSI: "12345678"

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
Hex	12	34	56	78	xx	xx	xx	42	14	80	xx

Coding:	B12	B13	B14
Hex	xx	xx	00

7.5 Void

8 Subscription independent tests

8.1 Phone book procedures

8.1.1 Recognition of a previously changed phonebook

8.1.1.1 Definition and applicability

If the UICC is inserted into a GSM terminal, the phonebook may have been altered in this GSM session. If the ADN entry has been changed or deleted, the GSM terminal will not be able to change the appropriate additional phonebook entries (e.g. EF_{ANR} Additional Number). In that case the UICC shall set a flag in the appropriate EF_{PBC} (phonebook Control). If the UICC is inserted in a 3G Terminal later, the 3G Terminal shall recognise the flag and the phonebook shall be synchronised by the Terminal. Once the Terminal recognises the set flag in the EF_{PBC}, the Terminal shall update the Change Counter in the EF_{CC}.

This test applies to all 3G Terminals.

8.1.1.2 Conformance requirement

The 3G Terminal shall recognise the set flag in the EF_{PBC} and then synchronise the phonebook. The Terminal shall also update EF_{CC} (Change Counter).

- TS 31.121, subclause 4.4.2.

8.1.1.3 Test purpose

- 1) To verify that the 3G Terminal has recognised that the phonebook has been altered by a GSM Terminal.
- 2) To verify that the 3G Terminal does the synchronising of the changed phonebook entries.
- 3) To verify that the 3G Terminal updates the EF_{PBC} and EF_{CC}.

8.1.1.4 Method of test

8.1.1.4.1 Initial conditions

No USS is needed for this test.

The default UICC is used with the following exception:

EF_{ADN} (Abbreviated Dialling Number)

Logically:

Record 1:	Length of alpha identifier:	32 characters;
	Alpha identifier:	"ABCDEFGHIJKLMNOPQRSTUVWXYZ";
	Length of BCD number:	"03";
	TON and NPI:	Telephony and Unknown;
	Dialled number:	123;
	CCI:	None;
	Ext1:	None.

Record 1:

Coding:	B1	B2	B3	...	B32	B33	B34	B35	B36	B37	B38	B39	...	B46
Hex	41	42	43	...	46	03	81	21	F3	FF	FF	FF	...	FF

EF_{PBC} (Phonebook Control)

Logically:

Record 1: The ADN Record No. 1 has been hanged by a GSM terminal.
Related ADN record is not hidden.

Coding: B1 B2
Hex 01 00

EF_{CC} (Change Counter)

Logically: "000F"

Coding: B1 B2
Hex 00 0F

The UICC is installed into the Terminal

8.1.1.4.2 Procedure

- The 3G Terminal is powered on.
- The Terminal shall stay powered on until the phonebook synchronisation procedures are finished. If the synchronisation is indicated by the Terminal, the Terminal shall only powered down after this indication is vanished.

8.1.1.5 Acceptance criteria

After step b) the USIM shall contain the following values:

EF_{PBC} (Phonebook Control)

Logically:

Record 1: The entry control information is reset.
Related ADN record is not hidden.

Coding: B1 B2
Hex 00 00

EF_{CC} (Change Counter)

Logically: The counter is incremented to "0010"

Coding: B1 B2
Hex 00 10

8.1.2 Update of the Phonebook Synchronisation Counter (PSC)**8.1.2.1 Definition and applicability**

The phonebook synchronisation Counter is used to unambiguously identify the status of the phonebook. Every time the phonebook is reset/deleted or the UID and/or the CC has run out of range, the PSC shall be regenerated.

The PSC is a part of the phonebook identifier.

This test applies to all 3G Terminals.

8.1.2.2 Conformance requirement

Every time either the UID or the CC is incremented by the Terminal, the value of the content of the appropriate EF shall be tested. If either UID or CC has reached "FF FF", the related EF shall be set to "00 01" and the PSC is incremented.

- TS 31.102, subclause 4.4.2.12.2.

8.1.2.3 Test purpose

- 1) To verify that the 3G Terminal has recognised that the values of UID and CC has changed.
- 2) To verify that the 3G Terminal resets the value of EF_{UID} and EF_{CC}.
- 3) To verify that the 3G Terminal updates EF_{PSC}.

8.1.2.4 Method of test

8.1.2.4.1 Initial conditions

No USS is needed for this test.

The default UICC is used with the following exception:

EF_{UID} (Unique Identifier)

Logically: one record is set to "FF FF"

Coding:	B1	B2
Hex	FF	FF

EF_{PUID} (Previous Unique Identifier)

Logically: is set to "FF FF"

Coding:	B1	B2
Hex	FF	FF

EF_{CC} (Change Counter)

Logically: set to "FF FF"

Coding:	B1	B2
Hex	FF	FF

EF_{PSC} (Phonebook Synchronisation Counter)

Logically: set to "00 00 FF FF"

Coding:	B1	B2	B3	B4
Hex	00	00	FF	FF

At least one phonebook entry shall be empty and available for creating a new entry (e.g. an appropriate ADN record).

The UICC is installed into the Terminal and the UE is powered on and the correct PIN is entered.

8.1.2.4.2 Procedure

- a) A new phonebook entry shall be created.

NOTE 1: This may be done by storing a new telephone number in an empty ADN record.

b) The UE shall have given the time to perform the regeneration of the UID records.

NOTE 2: It is assumed that the UE will indicate the time it needs to perform the regeneration by displaying a busy signal to the use.

8.1.2.5 Acceptance criteria

After step b) the USIM shall contain the following values:

The EF_{UID} (Unique Identifier) shall have been regenerated and the first value used to update EF_{UID} shall have been "00 01". The value FF FF shall have been replaced by an appropriate value which shall be distinguishable to the maximum value. EF_{PUID} shall contain the UID value, which was used for the last update of EF_{UID}.

EF_{CC} (Change Counter)

Logically: set to "00 01"

Coding:	B1	B2
Hex	00	01

EF_{PSC} (Phonebook Synchronisation Counter)

Logically: set to "00 01 00 00"

Coding:	B1	B2	B3	B4
Hex	00	01	00	00

8.2 Short message handling report

8.2.1 Correct storage of a SM on the USIM

8.2.1.1 Definition and applicability

Once a SM is received by the UE, the Terminal shall store the SM on the USIM, if this is indicated by the class 2 of the SMS (USIM specific SM). For this it is assumed, that at least one relevant SMS field are available on the USIM and they are indicated as empty. If all SMS data field are full and furthermore all memory capacity reserved for SMS inside the ME is filled up to maximum and a SM was rejected, then this shall be indicated in the SMS Status file.

This test applies to all 3G Terminal accessing UTRAN and supporting "receive SMS" functionality.

8.2.1.2 Conformance requirement

The received class 2 SMS shall be stored on the USIM in EF_{SMS}. The status of a received SMS, which has not been read yet, shall be set to "3" (SMS to be read). If the terminal notifies the network that the terminal has been unable to accept a short message because its memory capacity has been exceeded, then the ME shall set the Memory Capacity Exceeded Notification Flag in the EF_{SMS}.

- TS 23.038, clause 4.
- TS 23.040, subclause 10.1, Operation 6
- TS 24.011, subclause 8.2.2, 8.2.3 and 8.2.5.4, Table 8.4 (part 2)
- TS 31.102, subclauses 4.2.25 and 4.2.28.

8.2.1.3 Test purpose

- 1) To verify that the 3G Terminal stored correctly the class 2 SMS on the USIM.
- 2) To verify that the 3G Terminal sets the status of a received, and not yet read SMS to "3" (SMS to be read).

3) To verify that the 3G Terminal sets the memory full flag in EF_{SMSS}. if the terminal notifies the network that the terminal has been unable to accept a short message because its memory capacity has been exceeded

8.2.1.4 Method of test

8.2.1.4.1 Initial conditions

The default UICC is used with the following exception:

EF_{UST} (USIM Service Table)

Logically: Local Phone Book available
 User controlled PLMN selector available
 Fixed dialling numbers available
 Barred dialling numbers available
 The GSM Access available
 The Group Identifier level 1 and level 2 not available
 SMS available
 SMS Status available
 Service n 33 (Packed Switched Domain) shall be set to '1'
 Enabled Services Table available

Coding:	B1	B2	B3	B4	B5
binary	xx1x xx11	xxxx x11x	xxxx 1x00	xxxx x1xx	xxxx xx11

The coding of EF_{UST} shall conform with the capabilities of the USIM used.

EF_{SMS} (Short Message Service)

At least 10 records.
 Record 1 shall be empty.
 Logically: Status byte set to empty.

Record 1:

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	...	B176
Hex	00	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	...	FF

All other Record shall be full.
 Logically: Status byte set to SMS read.
 The text body of the record shall be filled with any appropriate text.

Records:

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	...	B176
Hex	01	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	...	xx

NOTE: "xx" shall be the appropriate text using the SMS default 7-bit coded alphabet as defined in 3G TS 23.038 which represents the received SMS.

EF_{SMSS} (SMS Status)

Logically: Last used TP-MR not defined.
 Memory capacity available (flag unset b1="1").

Coding:	B1	B2
Hex	FF	FF

The USS transmits on the BCCH, with the following network parameters:

- Attach/detach: disabled.

- LAI (MCC/MNC/LAC): 246/081/0001.
- Access control: unrestricted.

The USS transmits the short messages with the following parameters:

Logically:

Class 2 SM:

TS-Service Centre Address:

Bit 8:	1
Type-Of-Number:	International number
Numbering-Plan-Identification:	ISDN/telephony numbering plan
Address value:	112233445566

SMS TPDU:

TP-Message-Type-Indicator:	SMS-DELIVER (in the direction SC to MS)
TP-More-Messages-to-Send:	No more messages are waiting for the MS in this SC
TP-Reply-Path:	TP-Reply-Path parameter is not set in this SMS-DELIVER
TP-User-Data-Header-Indicator:	The TP-UD field contains only the short message
TP-Status-Report-Indication:	A status report shall be returned to the SME
Bits 4-3:	00

TP-Originating-Address:

Bit 8:	1
Type-Of-Number:	International number
Numbering-Plan-Identification:	ISDN/telephony numbering plan
Address value:	012344556677

TP-Protocol-Identifier: No interworking, but SME-to-SME protocol

TP-Data-Coding-Scheme:

Bits 8-7:	General Data Coding
Bit 6:	Text is uncompressed
Bit 5:	Bits 2-1 have a message class meaning
Bits 4-3:	GSM 7 bit default alphabet
Bits 2-1:	Class 2: (U)SIM specific message

TP-Service-Centre-Time-Stamp: 02-03-04 09:13:06 GMT + 1

TP-User-Data-Length: 160

TP-User-Data:

"Once a SMS is received by the UE, the Terminal shall store the SMS on the USIM, if this is indicated by the class 2 of the SMS (USIM specific SMS). For this..."

Class 1 SM:

The same content as for the Class 2 SM except:

SMS TPDU:

TP-More-Messages-to-Send: More messages are waiting for the MS in this SC

TP-Data-Coding-Scheme:

Bits 2-1: Class 1: default meaning: ME-specific

TP-Service-Centre-Time-Stamp: Always set to current time of the system simulator
User Equipment:

The UE is in MM-state "idle, updated". If there is ME storage capacity available, the storage for SMS inside the ME shall be able to allow for at least one more mobile terminated (e.g. Class 1) SM.

8.2.1.4.2 Procedure

- a) After the UE is set to idle mode, the defined Class 2 SM defined in 8.2.1.4.1 with 160 characters shall be sent to the UE.
- b) After the UE has indicated that a SM was received, the SM shall not be read.
- c) The USS starts sending Class 1 SMs as defined in 8.2.1.4.1 until the UE sends an RP-ERROR message with cause "Memory capacity exceeded".
- d) The UE is powered off.

8.2.1.5 Acceptance criteria

- 1) After step b) the record of the EF_{SMS} which was empty, shall contain the following values:

Record 1:

Logically:

Status:

RFU bits 8-6: 000

Status: Used space, message received by MS from network, message to be read

TS-Service Centre Address:

Bit 8: 1

Type-Of-Number: International number

Numbering-Plan-Identification: ISDN/telephony numbering plan

Address value: 112233445566

SMS TPDU:

TP-Message-Type-Indicator: SMS-DELIVER (in the direction SC to MS)

TP-More-Messages-to-Send: No more messages are waiting for the MS in this SC

TP-Reply-Path: TP-Reply-Path parameter is not set in this SMS-DELIVER

TP-User-Data-Header-Indicator: The TP-UD field contains only the short message

TP-Status-Report-Indication: A status report shall be returned to the SME

Bits 4-3: 00

TP-Originating-Address:

Bit 8:	1
Type-Of-Number:	International number
Numbering-Plan-Identification:	ISDN/telephony numbering plan
Address value:	012344556677
TP-Protocol-Identifier:	No interworking, but SME-to-SME protocol
TP-Data-Coding-Scheme:	
Bits 8-7:	General Data Coding
Bit 6:	Text is uncompressed
Bit 5:	Bits 2-1 have a message class meaning
Bits 4-3:	GSM 7 bit default alphabet
Bits 2-1:	Class 2: (U)SIM specific message
TP-Service-Centre-Time-Stamp:	02-03-04 09:13:06 GMT + 1
TP-User-Data-Length:	160
TP-User-Data:	

"Once a SMS is received by the UE, the Terminal shall store the SMS on the USIM, if this is indicated by the class 2 of the SMS (USIM specific SMS). For this ..."

Coding:

Hex	03	07	91	11	22	33	44	55	66	24	0C	91	10	32	44	55
	66	77	00	12	20	30	40	90	31	60	40	A0	4F	F7	B8	0C
	0A	83	A6	CD	29	28	3D	07	C9	CB	E3	72	DA	5E	26	83
	C4	79	10	1D	5D	06	55	8B	2C	10	1D	5D	06	51	CB	F2
	76	DA	1D	66	83	E6	E8	30	9B	0D	9A	D3	DF	F2	32	88
	8E	2E	83	A6	CD	29	E8	ED	06	D1	D1	65	50	75	9A	6C
	B2	40	69	33	88	8E	4E	CF	41	E9	39	28	ED	26	A7	C7
	61	7A	99	0C	12	E7	41	74	74	19	34	66	87	E7	73	90
	0C	F4	36	83	E8	E8	32	68	DA	9C	82	50	D5	69	B2	09
	9A	C3	CB	E3	B4	39	3D	06	4D	9B	D3	94	0B	64	7C	CB
	41	74	74	7A	0E	72	B9	5C								

2) After step d) the Memory Capacity Exceeded Notification Flag in the EF_{SMSS} shall be set to exceeded.

EF_{SMSS} (SMS Status)

Logically: Last used TP-MR shall be set to any appropriate value.
Memory capacity exceeded (flag set b1="0").

Coding:	B1	B2
Hex	xx	FE

8.2.2 Correct reading of a SM on the USIM

8.2.2.1 Definition and applicability

A SM which is stored but not yet read, is indicated as Status "3" (SMS to be read) on EF_{SMSS}. The Terminal may indicate the user this status. After the SMS is read by the user, the status of the SMS shall be changed to "1" (SMS read).

This test applies to all 3G Terminal accessing UTRAN and supporting "receive SMS" functionality.

8.2.2.2 Conformance requirement

A received SM was stored on the USIM in EF_{SMS}. At the time the SMS is read by the user, the status of a received SMS, shall be changed to "1" (SMS read).

- TS 23.038, clause 4.
- TS 23.040;
- TS 31.102, subclauses 4.2.25 and 4.2.28.

8.2.2.3 Test purpose

- 1) To verify that the 3G Terminal read correctly the SMS on the USIM.
- 2) To verify that the 3G Terminal changes the status of a read SMS to "1" (SMS read).

8.2.2.4 Method of test

8.2.2.4.1 Initial conditions

The default UICC is used with the following exception:

EF_{UST} (USIM Service Table)

Logically: Local Phone Book available
 User controlled PLMN selector available
 Fixed dialling numbers available
 Barred dialling numbers available
 The GSM Access available
 The Group Identifier level 1 and level 2 not available
 SMS available
 SMS Status available
 Service n 33 (Packed Switched Domain) shall be set to '1'
 Enabled Services Table available

Coding:	B1	B2	B3	B4	B5
binary	xx1x xx11	xxxx x11x	xxxx 1x00	xxxx x1xx	xxxx xx11

The coding of EF_{UST} shall conform with the capabilities of the USIM used.

EF_{SMSS} (SMS Status)

Logically: Last used TP-MR not set.
 Memory capacity available (flag unset b1="1").

Coding:	B1	B2
Hex	FF	FF

EF_{SMS} (Short Message Service)

Logically: Status byte set to SMS to be read.
 A chosen test is written in the text body of the EF_{SMS}.

Record 1:

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	...	B176
Hex	03	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	...	xx

NOTE: "xx" shall be the appropriate text using the SMS default 7-bit coded alphabet as defined in 3GPP TS 23.038 which represents the stored SMS.

At least 9 records.

Logically: Status byte set to empty
 No text is written (Remainder Bytes set to "00").

Record:

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	...	B176
Hex	00	00	00	00	00	00	00	00	00	00	00	00	...	FF

A USS is only needed to bring the UE into a defined idle mode. The USS transmits on the BCCH:

- Attach/detach: disabled.
- LAI (MCC/MNC/LAC): 246/081/0001.
- Access control: unrestricted.

User Equipment:

The UE is in MM-state "idle, updated".

8.2.2.4.2 Procedure

- After the UE has brought in idle state, the SMS shall be read.
- The UE is powered off.

8.2.2.5 Acceptance criteria

- After a) the correct text of the SM shall be read from the UE display.
- After step b) the EF_{SMS} record 1 shall contains the following values:

Logically: Status byte set to SMS read.
 The entire content of the SM shall be unchanged.

Record 1:

Coding:	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	...	B176
Hex	01	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	...	xx

NOTE: "xx" shall be the appropriate text using the SMS default 7-bit coded alphabet as defined in TS 23.038 which represents the stored SMS.

8.3 MMS related tests

8.3.1 UE recognising the priority order of MMS Issuer Connectivity Parameters

8.3.1.1 Definition and applicability

An MMS User Agent should use the MMS related information stored in the USIM, if present, unless otherwise specified by the user. Some of these sets of MMS connectivity parameters are preset by the issuer of the USIM with the first supported set being the default. Such preset MMS connectivity parameters set should be selected unless otherwise specified by the user.

The MMS connectivity information on the USIM includes preferences for the selection of Interface to Core Network and Bearer parameters. If these are stored on the USIM the MMS-capable UE should automatically select the Interface to Core Network and Bearer parameters based on their order of precedence defined on the USIM unless otherwise specified by the user.

MMS user preferences information, which is stored on the USIM, should be used by an MMS User Agent for user assistance in preparation of terminal-originated MMs (e.g. default values for parameters that are often used).

This test applies to Terminals accessing UTRAN, supporting MMS and supporting the usage of MMS related data stored on the USIM and when no user MMS connectivity parameters have been selected.

8.3.1.2 Conformance requirement

The MMS User Agent of a terminal, which supports the usage of MMS related data stored on the USIM, shall use the MMS connectivity parameters stored first in the supported parameter sets of EF MMSICP as default parameters to connect to the network for MMS purposes (i.e. sending an User generated MM).

- TS 31.102 [4], subclauses 4.2.69 and 5.3.30;
- TS 23.140 [23], subclause 6.1.11 and Annex F.

MMS user preferences information, which is stored on the USIM, shall be used by an MMS User Agent of a terminal, which supports the usage of MMS related data stored on the USIM, for user assistance in preparation of terminal-originated MMs.

- TS 31.102 [4], subclauses 4.2.70 and 5.3.31;
- TS 23.140 [23], subclause 6.1.11 and Annex F.

8.3.1.3 Test purpose

- 1) To verify that the Terminal's MMS User Agent uses the MMS connectivity parameter stored on the USIM to connect to the network for MMS purposes.
- 2) To verify that the Terminal's MMS User Agent uses the first stored set of supported parameters in EF MMSICP as default.
- 3) To verify that the Terminal's MMS User Agent uses the MMS user preference information stored on the USIM for user assistance in preparation of terminal-originated MMs.

8.3.1.4 Method of test

8.3.1.4.1 Initial conditions

Four MMS Relays/Servers are available:

MMS Relay/Server 1:

- MMS Connectivity Parameters

MMS implementation information: "WAP"
MMS Relay/Server
MMS Relay/Server information: "<http://mms-operator1.com>"
Interface to Core Network and Bearer
Bearer: "GSM-CSD"
Address: "+496998625"
Type of address: "E164"
Speed: "Autobauding"
Call type: "ANALOG_MODEM"
Authentication type: "PAP"
Authentication id: "B2B_OTSI1"
Authentication pw: "B2B_password1"
Gateway
Address: "170.187.51.3"
Type of address: "IPv4"
Port : "9201"
Service: "CO-WSP"
Authentication type: "HTTP BASIC"
Authentication id: "gateway_user1"
Authentication pw: "gateway_password1"

MMS Relay/Server 2:

- MMS Connectivity Parameters

MMS implementation information: "WAP"
MMS Relay/Server
MMS Relay/Server information: "<http://mms-operator1.com>"
Interface to Core Network and Bearer
Bearer: "GSM-CSD"
Address: "+496998626"
Type of address: "E164"
Speed: "Autobauding"
Call type: "ANALOG_MODEM"
Authentication type: "PAP"
Authentication id: "B2C_OTSI2"
Authentication pw: "B2C_password2"
Gateway
Address: "170.187.51.3"
Type of address: "IPv4"
Port : "9201"
Service: "CO-WSP"
Authentication type: "HTTP BASIC"
Authentication id: "gateway_user1"
Authentication pw: "gateway_password1"

MMS Relay/Server 3:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	" http://mms-operator1.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-GPRS"
Address:	"wap.B2B-operator1.com"
Type of address:	"APN"
Call type:	"ANALOG_MODEM"
Delivery of erroneous SDU:	"No"
Residual Bit Error Rate:	"1*10 ⁻⁵ "
SDU-Error-Ratio:	"1*10 ⁻⁶ "
Traffic-class:	"Interactive class"
Maximum bit rate for downlink:	"8 kbps"
Authentication type:	"PAP"
Authentication id:	"B2B_OTTS1"
Authentication pw:	"B2B_password1"
Gateway	
Address:	"170.187.51.3"
Type of address:	"IPv4"
Port :	"9201"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user1"
Authentication pw:	"gateway_password1"

MMS Relay/Server 4:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	" http://mms-operator1.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-GPRS"
Address:	"wap.B2C-operator1.com"
Type of address:	"APN"
Call type:	"ANALOG_MODEM"
Delivery of erroneous SDU:	"No"
Residual Bit Error Rate:	"1*10 ⁻⁵ "
SDU-Error-Ratio:	"1*10 ⁻⁶ "
Traffic-class:	"Interactive class"
Maximum bit rate for downlink:	"8 kbps"
Authentication type:	"PAP"
Authentication id:	"B2C_OTTS2"
Authentication pw:	"B2C_password2"
Gateway	
Address:	"170.187.51.3"
Type of address:	"IPv4"
Port :	"9201"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user1"
Authentication pw:	"gateway_password1"

The default UICC is used with the following exceptions:

EF_{UST} (USIM Service Table)

- Logically: Local Phone Book available
- User controlled PLMN selector available
- Fixed dialling numbers available
- Barred dialling numbers available
- The GSM Access available
- The Group Identifier level 1 and level 2 not available
- SMS available
- SMS Status available
- Service no. 33 (Packed Switched Domain) shall be set to '1'
- Service no. 52 Multimedia Messaging Service available
- Service no. 55 MMS User Connectivity Parameters not available

Coding:	B1	B2	B3	B4	B5	B6	B7
Binary	xx1x xx11	x11x xxxx	xxxx 1x00	xxxx x1xx	xxxx xxx1	xxxx xxxx	x0xx 1xxx

EF MMSN

- Logically:
- MMS Status: Free space
- MMS Implementation : "00"
- MMS Notification: "FF FF ... FF" (251 bytes)
- Extension file record number: "FF"

Coding:	B1	B2	B3	B4	B5	...	B254	B255
	00	00	00	FF	FF		FF	FF

EF MMSICP

Logically:

MMS Connectivity Parameters

MMS Implementation

MMS Implementation Information : "WAP"

MMS Relay/Server

MMS Relay/Server Address "<http://mms-operator1.com>"

1st Interface to Core Network and Bearer

Bearer: "GSM-CSD"
 Address: "+496998625"
 Type of address: "E164"
 Speed: "Autobauding"
 Call type: "ANALOG_MODEM"
 Authentication type: "PAP"
 Authentication id: "B2B_OTSI"
 Authentication pw: "B2B_password1"

2nd Interface to Core Network and Bearer

Bearer: "GSM-CSD"
 Address: "+496998626"
 Type of address: "E164"
 Speed: "Autobauding"
 Call type: "ANALOG_MODEM"
 Authentication type: "PAP"
 Authentication id: "B2C_OTSI2"
 Authentication pw: "B2C_password2"

3rd Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
 Address: "wap.B2B-operator1.com"
 Type of address: "APN"
 Call type: "ANALOG_MODEM"
 Delivery of erroneous SDU: "No"
 Residual Bit Error Rate: " $1 \cdot 10^{-5}$ "
 SDU-Error-Ratio: " $1 \cdot 10^{-6}$ "
 Traffic-class: "Interactive class"
 Maximum bit rate for downlink: "8 kbps"
 Authentication type: "PAP"
 Authentication id: "B2B_OTSI"
 Authentication pw: "B2B_password1"

4th Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
 Address: "wap.B2C-operator1.com"
 Type of address: "APN"
 Call type: "ANALOG_MODEM"
 Delivery of erroneous SDU: "No"
 Residual Bit Error Rate: " $1 \cdot 10^{-5}$ "
 SDU-Error-Ratio: " $1 \cdot 10^{-6}$ "
 Traffic-class: "Interactive class"
 Maximum bit rate for downlink: "8 kbps"
 Authentication type: "PAP"
 Authentication id: "B2C_OTSI2"
 Authentication pw: "B2C_password2"

Gateway:

Address: "170.187.51.3"
 Type of address: "IPv4"
 Port : "9201"
 Service: "CO-WSP"
 Authentication type: "HTTP BASIC"
 Authentication id: "gateway_user1"
 Authentication pw: "gateway_password1"

8.3.1.5 Acceptance criteria

- 1) After step b) the Terminal shall have read the set of supported MMS connectivity parameters stored first in EF MMSICP.
- 2) After step b) the Terminal shall have sent the MM to "+0123456789" using the MMS connectivity parameters stored first in the supported parameter sets in EF MMSICP.
- 3) After step b) the Terminal shall have sent the MM to "+0123456789" using the MMS user preference information stored in EF MMSUP.

8.3.2 UE recognising the priority order of MMS User Connectivity Parameters

8.3.2.1 Definition and applicability

An MMS User Agent should use the MMS related information stored in the USIM, if present, unless otherwise specified by the user. The MMS connectivity parameters determined by the user, with the first supported set being the default, should be used to connect to the network for purpose of accessing the MMS Relay/Server.

The MMS connectivity information on the USIM includes preferences for the selection of Interface to Core Network and Bearer parameters. If these are stored on the USIM the MMS-capable UE should automatically select the Interface to Core Network and Bearer parameters based on their order of precedence defined on the USIM unless otherwise specified by the user.

MMS user preferences information, which is stored on the USIM, should be used by an MMS User Agent for user assistance in preparation of terminal-originated MMs (e.g. default values for parameters that are often used).

This test applies to Terminals accessing UTRAN, supporting MMS and supporting the usage of MMS related data stored on the USIM and when no user MMS connectivity parameters have been selected.

8.3.2.2 Conformance requirement

When using the MMS User Connectivity Parameters to connect to the network for MMS purposes (i.e. sending an User generated MM), the MMS User Agent of a terminal, which supports the usage of MMS related data stored on the USIM, shall use the MMS User Connectivity Parameters with the highest priority (as defined by its position in EF MMSUCP) unless otherwise specified by the user.

- TS 31.102 [4], subclauses 4.2.71 and 5.3.32;
- TS 23.140 [23], subclause 6.1.11 and Annex F.

MMS user preferences information, which is stored on the USIM, shall be used by an MMS User Agent of a terminal, which supports the usage of MMS related data stored on the USIM, for user assistance in preparation of terminal-originated MMs.

- TS 31.102 [4], subclauses 4.2.70 and 5.3.31;
- TS 23.140 [23], subclause 6.1.11 and Annex F.

8.3.2.3 Test purpose

- 1) To verify that the Terminal's MMS User Agent uses the MMS connectivity parameter stored on the USIM to connect to the network for MMS purposes.
- 2) To verify that when using the MMS User Connectivity Parameters to connect to the network for MMS purposes the Terminal's MMS User Agent uses the set of supported parameters in EF MMSUCP with the highest priority (as defined by its position in EF MMSUCP).
- 3) To verify that the Terminal's MMS User Agent uses the MMS user preference information stored on the USIM for user assistance in preparation of terminal-originated MMs.

8.3.2.4 Method of test

8.3.2.4.1 Initial conditions

Four MMS Relays/Servers are available:

MMS Relay/Server 1:

- MMS Connectivity Parameters

- MMS implementation information: "WAP"
- MMS Relay/Server
 - MMS Relay/Server information: "<http://mms-operator2.com>"
 - Interface to Core Network and Bearer
 - Bearer: "GSM-CSD"
 - Address: "+495251699"
 - Type of address: "E164"
 - Speed: "Autobauding"
 - Call type: "ANALOG_MODEM"
 - Authentication type: "PAP"
 - Authentication id: "UDO_OTSS1"
 - Authentication pw: "Udo_password1"
 - Gateway
 - Address: "170.187.51.4"
 - Type of address: "IPv4"
 - Port : "9203"
 - Service: "CO-WSP"
 - Authentication type: "HTTP BASIC"
 - Authentication id: "gateway_user7"
 - Authentication pw: "gateway_password7"

MMS Relay/Server 2:

- MMS Connectivity Parameters

- MMS implementation information: "WAP"
- MMS Relay/Server
 - MMS Relay/Server information: "<http://mms-operator2.com>"
 - Interface to Core Network and Bearer
 - Bearer: "GSM-CSD"
 - Address: "+495251700"
 - Type of address: "E164"
 - Speed: "Autobauding"
 - Call type: "ANALOG_MODEM"
 - Authentication type: "PAP"
 - Authentication id: "UDO_OTSS2"
 - Authentication pw: "Udo_password2"
 - Gateway
 - Address: "170.187.51.4"
 - Type of address: "IPv4"
 - Port : "9203"
 - Service: "CO-WSP"
 - Authentication type: "HTTP BASIC"
 - Authentication id: "gateway_user7"
 - Authentication pw: "gateway_password7"

MMS Relay/Server 3:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	"http:// mms-operator2.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-GPRS"
Address:	"wap.B2B-operator2.com"
Type of address:	"APN"
Call type:	"ANALOG_MODEM"
Delivery of erroneous SDU:	"No"
Residual Bit Error Rate:	"1*10 ⁻⁵ "
SDU-Error-Ratio:	"1*10 ⁻⁶ "
Traffic-class:	"Interactive class"
Maximum bit rate for downlink:	"8 kbps"
Authentication type:	"PAP"
Authentication id:	"UDO_OTSI1"
Authentication pw:	"Udo_password1"
Gateway	
Address:	"170.187.51.4"
Type of address:	"IPv4"
Port :	"9203"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user7"
Authentication pw:	"gateway_password7"

MMS Relay/Server 4:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	"http:// mms-operator2.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-GPRS"
Address:	"wap.B2C-operator2.com"
Type of address:	"APN"
Call type:	"ANALOG_MODEM"
Delivery of erroneous SDU:	"No"
Residual Bit Error Rate:	"1*10 ⁻⁵ "
SDU-Error-Ratio:	"1*10 ⁻⁶ "
Traffic-class:	"Interactive class"
Maximum bit rate for downlink:	"8 kbps"
Authentication type:	"PAP"
Authentication id:	"UDO_OTSI2"
Authentication pw:	"Udo_password2"
Gateway	
Address:	"170.187.51.4"
Type of address:	"IPv4"
Port :	"9203"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user7"
Authentication pw:	"gateway_password7"

The default UICC is used with the following exceptions:

EF_{UST} (USIM Service Table)

Logically:

- Local Phone Book available
- User controlled PLMN selector available
- Fixed dialling numbers available
- Barred dialling numbers available
- The GSM Access available
- The Group Identifier level 1 and level 2 not available
- SMS available
- SMS Status available
- Service no. 33 (Packed Switched Domain) shall be set to '1'
- Service no. 52 Multimedia Messaging Service available
- Service no. 55 MMS User Connectivity Parameters available

Coding:	B1	B2	B3	B4	B5	B6	B7
Binary	xx1x xx11	x11x xxxx	xxxx 1x00	xxxx x1xx	xxxx xxx1	xxxx xxxx	x1xx 1xxx

EF MMSN

Logically:

- MMS Status: Free space
- MMS Implementation : "00"
- MMS Notification: "FF FF ... FF" (251 bytes)
- Extension file record number: "FF"

Coding:	B1	B2	B3	B4	B5	...	B254	B255
	00	00	00	FF	FF		FF	FF

EF MMSICP

Logically: Empty

Coding:	B1	B2	...	Bxx
	FF	FF		FF

EF MMSUP

Logically:

MMS Implementation

- MMS implementation information: "WAP"
- MMS User Preference Profile Name: "Greeting cards"

MMS User Information Preference Information

- Visibility: "hide"
- Delivery report: "yes"
- Read-reply: "yes"
- Priority: "normal"
- Delivery-Time:
 - Value (absolute): "1-Jan-2003, 12:00:00 AM GMT"
 - Expiry:
 - Value (relative): 1104537600 seconds

Coding:	80	01	01	81	0E	47	72	65	65	74	69	6E
	67	20	63	61	72	64	73	82	19	14	80	06
	80	10	80	0F	81	07	07	80	05	00	3E	12
	2F	80	08	06	81	04	41	D5	E8	00		

EF MMSUCP

Logically:

MMS Connectivity Parameters

MMS Implementation

MMS Implementation Information : "WAP"

MMS Relay/Server

MMS Relay/Server Address "http://mms-operator2.com"

1st Interface to Core Network and Bearer

Bearer: "GSM-CSD"
 Address: "+495251699"
 Type of address: "E164"
 Speed: "Autobauding"
 Call type: "ANALOG_MODEM"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS1"
 Authentication pw: "Udo_password1"

2nd Interface to Core Network and Bearer

Bearer: "GSM-CSD"
 Address: "+495251700"
 Type of address: "E164"
 Speed: "Autobauding"
 Call type: "ANALOG_MODEM"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS2"
 Authentication pw: "Udo_password2"

3rd Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
 Address: "wap.B2B-operator2.com"
 Type of address: "APN"
 Call type: "ANALOG_MODEM"
 Delivery of erroneous SDU: "No"
 Residual Bit Error Rate: "1*10⁻⁵"
 SDU-Error-Ratio: "1*10⁻⁶"
 Traffic-class: "Interactive class"
 Maximum bit rate for downlink: "8 kbps"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS1"
 Authentication pw: "Udo_password1"

4th Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
 Address: "wap.B2C-operator2.com"
 Type of address: "APN"
 Call type: "ANALOG_MODEM"
 Delivery of erroneous SDU: "No"
 Residual Bit Error Rate: "1*10⁻⁵"
 SDU-Error-Ratio: "1*10⁻⁶"
 Traffic-class: "Interactive class"
 Maximum bit rate for downlink: "8 kbps"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS2"
 Authentication pw: "Udo_password2"

Gateway:

Address: "170.187.51.4"
 Type of address: "IPv4"
 Port : "9203"
 Service: "CO-WSP"
 Authentication type: "HTTP BASIC"
 Authentication id: "gateway_user7"
 Authentication pw: "gateway_password7"

This test applies to terminals accessing UTRAN, supporting MMS and supporting the usage of MMS related data stored on the USIM and when no user MMS connectivity parameters have been selected.

8.3.3.2 Conformance requirement

MMS connectivity information, on the USIM includes a number of sets of MMS connectivity parameters. Some of these sets of MMS connectivity parameters are preset by the issuer of the USIM with the first set being the default. Such default preset MMS connectivity parameter set shall be selected by a MMS User Agent of a terminal, which supports the usage of MMS related data stored on the USIM, unless otherwise specified by the user.

- TS 31.102 [4], subclauses 4.2.69, 4.7.71, 5.3.30 and 5.3.32;
- TS 23.140 [23], subclause 6.1.11 and Annex F

8.3.3.3 Test purpose

- 1) To verify that the Terminal's MMS User Agent uses the MMS connectivity parameter stored on the USIM to connect to the network for MMS purposes.
- 2) To verify that a MMS Issuer Connectivity Parameter set with lower priority (as defined by its position in EF MMSICP) takes precedence over a MMS User Connectivity Parameter set with a higher priority.

8.3.3.4 Method of test

8.3.3.4.1 Initial conditions

Four MMS Relays/Servers are available:

MMS Relay/Server 1:

- MMS Connectivity Parameters	
MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	"http:// mms-operator3.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-CSD"
Address:	"+495251699"
Type of address:	"E164"
Speed:	"Autobauding"
Call type:	"ANALOG_MODEM"
Authentication type:	"PAP"
Authentication id:	"UDO_OTSI1"
Authentication pw:	"Udo_password1"
Gateway	
Address:	"170.187.51.5"
Type of address:	"IPv4"
Port :	"9201"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user9"
Authentication pw:	"gateway_password9"

MMS Relay/Server 2:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	"http:// mms-operator3.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-GPRS"
Address:	"wap.B2P-operator3.com"
Type of address:	"APN"
Call type:	"ANALOG_MODEM"
Delivery of erroneous SDU:	"No"
Residual Bit Error Rate:	"1*10 ⁻⁵ "
SDU-Error-Ratio:	"1*10 ⁻⁶ "
Traffic-class:	"Interactive class"
Maximum bit rate for downlink:	"8 kbps"
Authentication type:	"PAP"
Authentication id:	"UDO_OTS1"
Authentication pw:	"Udo_password1"
Gateway	
Address:	"170.187.51.5"
Type of address:	"IPv4"
Port :	"9201"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user9"
Authentication pw:	"gateway_password9"

MMS Relay/Server 3:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	"http:// mms-operator3.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-CSD"
Address:	"+496998626"
Type of address:	"E164"
Speed:	"Autobauding"
Call type:	"ANALOG_MODEM"
Authentication type:	"PAP"
Authentication id:	"B2C_OTS2"
Authentication pw:	"B2C_password2"
Gateway	
Address:	"170.187.51.5"
Type of address:	"IPv4"
Port :	"9201"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user9"
Authentication pw:	"gateway_password9"

MMS Relay/Server 4:

- MMS Connectivity Parameters

MMS implementation information:	"WAP"
MMS Relay/Server	
MMS Relay/Server information:	"http:// mms-operator3.com "
Interface to Core Network and Bearer	
Bearer:	"GSM-GPRS"
Address:	"wap.B2C-operator3.com"
Type of address:	"APN"
Call type:	"ANALOG_MODEM"
Delivery of erroneous SDU:	"No"
Residual Bit Error Rate:	"1*10 ⁻⁵ "
SDU-Error-Ratio:	"1*10 ⁻⁶ "
Traffic-class:	"Interactive class"
Maximum bit rate for downlink:	"8 kbps"
Authentication type:	"PAP"
Authentication id:	"B2C_OTS2"
Authentication pw:	"B2C_password2"
Gateway	
Address:	"170.187.51.5"
Type of address:	"IPv4"
Port :	"9201"
Service:	"CO-WSP"
Authentication type:	"HTTP BASIC"
Authentication id:	"gateway_user9"
Authentication pw:	"gateway_password9"

The default UICC is used with the following exceptions:

EF_{UST} (USIM Service Table)

Logically:	Local Phone Book available
	User controlled PLMN selector available
	Fixed dialling numbers available
	Barred dialling numbers available
	The GSM Access available
	The Group Identifier level 1 and level 2 not available
	SMS available
	SMS Status available
	Service no. 33 (Packed Switched Domain) shall be set to '1'
	Service no. 52 Multimedia Messaging Service available
	Service no. 55 MMS User Connectivity Parameters available

Coding:	B1	B2	B3	B4	B5	B6	B7
Binary	xx1x xx11	x11x xxxx	xxxx 1x00	xxxx x1xx	xxxx xxx1	xxxx xxxx	x1xx 1xxx

EF MMSN

Logically:	
MMS Status:	Free space
MMS Implementation :	"00"
MMS Notification:	"FF FF ... FF" (251 bytes)
Extension file record number:	"FF"

Coding:	B1	B2	B3	B4	B5	...	B254	B255
	00	00	00	FF	FF		FF	FF

EF MMSICP

Logically:

MMS Connectivity Parameters

MMS Implementation

MMS Implementation Information : "WAP"

MMS Relay/Server

MMS Relay/Server Address "<http://mms-operator3.com>"

1st Interface to Core Network and Bearer

Bearer: "GSM-CSD"
Address: "+496998625"
Type of address: "E164"
Speed: "Autobauding"
Call type: "ANALOG_MODEM"
Authentication type: "PAP"
Authentication id: "B2B_OTS1"
Authentication pw: "B2B_password1"

2nd Interface to Core Network and Bearer

Bearer: "GSM-CSD"
Address: "+496998626"
Type of address: "E164"
Speed: "Autobauding"
Call type: "ANALOG_MODEM"
Authentication type: "PAP"
Authentication id: "B2C_OTS2"
Authentication pw: "B2C_password2"

3rd Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
Address: "wap.B2B-operator3.com"
Type of address: "APN"
Call type: "ANALOG_MODEM"
Delivery of erroneous SDU: "No"
Residual Bit Error Rate: " $1*10^{-5}$ "
SDU-Error-Ratio: " $1*10^{-6}$ "
Traffic-class: "Interactive class"
Maximum bit rate for downlink: "8 kbps"
Authentication type: "PAP"
Authentication id: "B2B_OTS1"
Authentication pw: "B2B_password1"

4th Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
Address: "wap.B2C-operator3.com"
Type of address: "APN"
Call type: "ANALOG_MODEM"
Delivery of erroneous SDU: "No"
Residual Bit Error Rate: " $1*10^{-5}$ "
SDU-Error-Ratio: " $1*10^{-6}$ "
Traffic-class: "Interactive class"
Maximum bit rate for downlink: "8 kbps"
Authentication type: "PAP"
Authentication id: "B2C_OTS2"
Authentication pw: "B2C_password2"

Gateway:

Address: "170.187.51.5"
Type of address: "IPv4"
Port : "9201"
Service: "CO-WSP"
Authentication type: "HTTP BASIC"
Authentication id: "gateway_user9"
Authentication pw: "gateway_password9"

Logically:

MMS Connectivity Parameters

MMS Implementation

MMS Implementation Information : "WAP"

MMS Relay/Server

MMS Relay/Server Address "http://mms-operator3.com"

1st Interface to Core Network and Bearer

Bearer: "GSM-CSD"
 Address: "+495251699"
 Type of address: "E164"
 Speed: "Autobauding"
 Call type: "ANALOG_MODEM"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS1"
 Authentication pw: "Udo_password1"

2nd Interface to Core Network and Bearer

Bearer: "GSM-CSD"
 Address: "+495251700"
 Type of address: "E164"
 Speed: "Autobauding"
 Call type: "ANALOG_MODEM"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS2"
 Authentication pw: "Udo_password2"

3rd Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
 Address: "wap.B2P-operator3.com"
 Type of address: "APN"
 Call type: "ANALOG_MODEM"
 Delivery of erroneous SDU: "No"
 Residual Bit Error Rate: "1*10⁻⁵"
 SDU-Error-Ratio: "1*10⁻⁶"
 Traffic-class: "Interactive class"
 Maximum bit rate for downlink: "8 kbps"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS1"
 Authentication pw: "Udo_password1"

4th Interface to Core Network and Bearer

Bearer: "GSM-GPRS"
 Address: "wap.B2C-operator3.com"
 Type of address: "APN"
 Call type: "ANALOG_MODEM"
 Delivery of erroneous SDU: "No"
 Residual Bit Error Rate: "1*10⁻⁵"
 SDU-Error-Ratio: "1*10⁻⁶"
 Traffic-class: "Interactive class"
 Maximum bit rate for downlink: "8 kbps"
 Authentication type: "PAP"
 Authentication id: "UDO_OTS2"
 Authentication pw: "Udo_password2"

Gateway:

Address: "170.187.51.5"
 Type of address: "IPv4"
 Port : "9201"
 Service: "CO-WSP"
 Authentication type: "HTTP BASIC"
 Authentication id: "gateway_user9"
 Authentication pw: "gateway_password9"

Coding:	AB	82	01	47	80	01	01	81	18	68	74	74
	70	3A	2F	2F	6D	6D	73	2D	6F	70	65	72
	61	74	6F	72	33	2E	63	6F	6D	82	2F	10
	AA	08	2B	34	39	35	32	35	31	36	39	39
	00	09	87	25	C5	0A	90	0C	9A	0D	55	44
	4F	11	4F	54	53	31	00	0E	55	64	6F	11
	70	61	73	73	77	6F	72	64	31	00	82	2F
	10	AA	08	2B	34	39	35	32	35	31	37	30
	30	00	09	87	25	C5	0A	90	0C	9A	0D	55
	44	4F	11	4F	54	53	32	00	0E	55	64	6F
	11	70	61	73	73	77	6F	72	64	32	00	82
	43	10	AB	08	03	77	61	70	0D	42	32	50
	2D	6F	70	65	72	61	74	6F	72	33	03	63
	6F	6D	00	09	89	0A	90	31	03	37	70	38
	06	33	60	36	08	0C	9A	0D	55	44	4F	11
	4F	54	53	31	00	0E	55	64	6F	11	70	61
	73	73	77	6F	72	64	31	00	82	43	10	AB
	08	03	77	61	70	0D	42	32	43	2D	6F	70
	65	72	61	74	6F	72	33	03	63	6F	6D	00
	09	89	0A	90	31	03	37	70	38	06	33	60
	36	08	0C	9A	0D	55	44	4F	11	4F	54	53
	32	00	0E	55	64	6F	11	70	61	73	73	77
	6F	72	64	32	00	83	3C	20	31	37	30	2E
	31	38	37	2E	35	31	2E	35	00	21	85	23
	39	32	30	31	00	24	CB	19	9C	1A	67	61
	74	65	77	61	79	11	75	73	65	72	39	00
	1B	67	61	74	65	77	61	79	11	70	61	73
	73	77	6F	72	64	39	00					

The UICC is installed into the Terminal and the user hasn't specified a default MMS connectivity parameter set.

8.3.3.4.2 Procedure

- a) The Terminal is powered on and the PIN shall be entered.
- b) When the Terminal is in idle mode the user shall generate an MM using the MMS User Agent on the Terminal with the default MMS connectivity parameter set and send it to "+0123456789". If no MMS Relay/Server is available for this parameter set, the next MMS connectivity parameter set offered by the MMS User Agent shall be used to send the MM.

8.3.3.5 Acceptance criteria

After step b) the Terminal shall have sent the MM to "+0123456789" using the first supported MMS connectivity parameter set, which can be used to access an available MMS Relay/Server and is stored in EF MMSICP.

8.3.4 Usage of MMS notification

8.3.4.1 Definition and applicability

An MMS User Agent should use the MMS related information stored in the USIM, if present, unless otherwise specified by the user. This information comprises MMS connectivity information, MMS user preferences and MMS notifications. MMS notifications should be stored on the USIM together with an associated status by a MMS User Agent according to TS 23.140 [23].

This test applies to terminals accessing UTRAN, supporting MMS notification storage on the USIM.

8.3.4.2 Conformance requirement

A Terminal supporting MMS notification storage on the USIM shall store MMS notifications together with an associated status on the USIM.

- TS 31.102 [4], subclauses 4.2.67 and 5.3.29;

- TS 23.140 [23], subclauses 6.1.11 and Annex F.

8.3.4.3 Test purpose

To verify that the Terminal stores and updates MMS notifications with the associated status on the USIM correctly.

8.3.4.4 Method of test

8.3.4.4.1 Initial conditions

Two MMS Relays/Servers are available:

MMS Relay/Server 1:

MMS Connectivity Parameters

MMS implementation information: "WAP"

MMS Relay/Server

MMS Relay/Server information: "http://mms-operator1.com"

Interface to Core Network and Bearer

Bearer: "GSM-CSD"

Address: "+496998625"

Type of address: "E164"

Speed: "Autobauding"

Call type: "ANALOG_MODEM"

Authentication type: "PAP"

Authentication id: "B2B_OTSI"

Authentication pw: "B2B_password1"

Gateway

Address: "170.187.51.3"

Type of address: "IPv4"

Port: "9201"

Service: "CO-WSP"

Authentication type: "HTTP BASIC"

Authentication id: "gateway_user1"

Authentication pw: "gateway_password1"

MMS Relay/Server 2:

- MMS Connectivity Parameters

MMS implementation information: "WAP"
MMS Relay/Server
MMS Relay/Server information: "http://mms-operator1.com"
Interface to Core Network and Bearer
Bearer: "GSM-GPRS"
Address: "wap.B2B-operator1.com"
Type of address: "APN"
Call type: "ANALOG_MODEM"
Delivery of erroneous SDU: "No"
Residual Bit Error Rate: "1*10⁻⁵"
SDU-Error-Ratio: "1*10⁻⁶"
Traffic-class: "Interactive class"
Maximum bit rate for downlink: "8 kbps"
Authentication type: "PAP"
Authentication id: "B2B_OTSI1"
Authentication pw: "B2B_password1"
Gateway
Address: "170.187.51.3"
Type of address: "IPv4"
Port: "9201"
Service: "CO-WSP"
Authentication type: "HTTP BASIC"
Authentication id: "gateway_user1"
Authentication pw: "gateway_password1"

The default UICC is used with the following exceptions:

EF_{UST} (USIM Service Table)

Logically: Local Phone Book available
User controlled PLMN selector available
Fixed dialling numbers available
Barred dialling numbers available
The GSM Access available
The Group Identifier level 1 and level 2 not available
SMS available
SMS Status available
Service no. 33 (Packed Switched Domain) shall be set to '1'
Service no. 52 Multimedia Messaging Service available
Service no. 53 Extension 8 available
Service no. 55 MMS User Connectivity Parameters not available

Coding:	B1	B2	B3	B4	B5	B6	B7
Binary	xx1x xx11	x11x xxxx	xxxx 1x00	xxxx x1xx	xxxx xxx1	xxxx xxxx	x0x1 1xxx

EF MMSN

Logically:
MMS Status: Free space
MMS Implementation : "00"
MMS Notification: "FF FF ... FF" (251 bytes)
Extension file record number: "FF"

Coding:	B1	B2	B3	B4	B5	...	B254	B255
	00	00	00	FF	FF		FF	FF

EF MMSUP

Logically:

MMS Implementation

MMS implementation information: "WAP"

MMS User Preference Profile Name: "Greeting cards"

MMS User Information Preference Information

Visibility: "hide"

Delivery report: "yes"

Read-reply: "yes"

Priority: "normal"

Delivery-Time:

Value (absolute): "1-Jan-2003, 12:00:00 AM GMT"

Expiry:

Value (relative): 1104537600 seconds

Coding:	80	01	01	81	0E	47	72	65	65	74	69	6E
	67	20	63	61	72	64	73	82	19	14	80	06
	80	10	80	0F	81	07	07	80	05	00	3E	12
	2F	80	08	06	81	04	41	D5	E8	00		

EF MMSICP

Logically:

MMS Connectivity Parameters

MMS Implementation

MMS Implementation Information : "WAP"

MMS Relay/Server

MMS Relay/Server Address "<http://mms-operator1.com>"

1st Interface to Core Network and Bearer

Bearer: "GSM-CSD"

Address: "+496998625"

Type of address: "E164"

Speed: "Autobauding"

Call type: "ANALOG_MODEM"

Authentication type: "PAP"

Authentication id: "B2B_OTS1"

Authentication pw: "B2B_password1"

2nd Interface to Core Network and Bearer

Bearer: "GSM-CSD"

Address: "+496998626"

Type of address: "E164"

Speed: "Autobauding"

Call type: "ANALOG_MODEM"

Authentication type: "PAP"

Authentication id: "B2C_OTS2"

Authentication pw: "B2C_password2"

3rd Interface to Core Network and Bearer

Bearer: "GSM-GPRS"

Address: "wap.B2B-operator1.com"

Type of address: "APN"

Call type: "ANALOG_MODEM"

Delivery of erroneous SDU: "No"

Residual Bit Error Rate: "1*10⁻⁵"

```

SDU-Error-Ratio: "1*10-6"
Traffic-class: "Interactive class"
Maximum bit rate for downlink: "8 kbps"
Authentication type: "PAP"
Authentication id: "B2B_OTSI1"
Authentication pw: "B2B_password1"
4th Interface to Core Network and Bearer
Bearer: "GSM-GPRS"
Address: "wap.B2C-operator1.com"
Type of address: "APN"
Call type: "ANALOG_MODEM"
Delivery of erroneous SDU: "No"
Residual Bit Error Rate: "1*10-5"
SDU-Error-Ratio: "1*10-6"
Traffic-class: "Interactive class"
Maximum bit rate for downlink: "8 kbps"
Authentication type: "PAP"
Authentication id: "B2C_OTSI2"
Authentication pw: "B2C_password2"
Gateway:
Address: "170.187.51.3"
Type of address: "IPv4"
Port: "9201"
Service: "CO-WSP"
Authentication type: "HTTP BASIC"
Authentication id: "gateway_user1"
Authentication pw: "gateway_password1"

```

Coding:	AB	82	01	47	80	01	01	81	18	68	74	74
	70	3A	2F	2F	6D	6D	73	2E	6F	70	65	72
	61	74	6F	72	31	2E	63	6F	6D	82	2F	10
	AA	08	2B	34	39	36	39	39	38	36	32	35
	00	09	87	25	C5	0A	90	0C	9A	0D	42	32
	42	11	4F	54	53	31	00	0E	42	32	42	11
	70	61	73	73	77	6F	72	64	31	00	82	2F
	10	AA	08	2B	34	39	36	39	39	38	36	32
	36	00	09	87	25	C5	0A	90	0C	9A	0D	42
	32	43	11	4F	54	53	32	00	0E	42	32	43
	11	70	61	73	73	77	6F	72	64	32	00	82
	43	10	AB	08	03	77	61	70	0D	42	32	42
	2D	6F	70	65	72	61	74	6F	72	31	03	63
	6F	6D	00	09	89	0A	90	31	03	37	70	38
	06	33	60	36	08	0C	9A	0D	42	32	42	11
	4F	54	53	31	00	0E	42	32	42	11	70	61
	73	73	77	6F	72	64	31	00	82	43	10	AB
	08	03	77	61	70	0D	42	32	43	2D	6F	70
	65	72	61	74	6F	72	31	03	63	6F	6D	00
	09	89	0A	90	31	03	37	70	38	06	33	60
	36	08	0C	9A	0D	42	32	43	11	4F	54	53
	32	00	0E	42	32	43	11	70	61	73	73	77
	6F	72	64	32	00	83	3C	20	31	37	30	2E
	31	38	37	2E	35	31	2E	33	00	21	85	23
	39	32	30	31	00	24	CB	19	9C	1A	67	61
	74	65	77	61	79	11	75	73	65	72	31	00
	1B	67	61	74	65	77	61	79	11	70	61	73
	73	77	6F	72	64	31	00					

EF EXT8

Logically:

At least 10 records.

Record 1 to 10: Free space with 253 bytes for extension data

Record 1:

Coding:	B1	B2	B3	B4	B255
Hex	00	FF	FF	FF			FF

The UICC is installed into the Terminal and the user hasn't specified a default MMS connectivity parameter set.

8.3.4.4.2 Procedure

- a) The terminal is powered on and the PIN shall be entered.
- b) When the terminal is in idle mode a MM shall be sent to the terminal via the MMS Relay/Server 1 or 2, dependent on the bearer supported by the terminal. This MMS Relay/Server shall then generate a notification to the Terminal's MMS User Agent. With the MM notification the MMS User Agent shall receive a message reference that can be used for retrieving the MM from this MMS Relay/Server.

The MM shall result in a MMS notification with the following predefined values:

- X-Mms Message Type: "m-notification-ind" (0x82)
- X-Mms-Transaction-ID: "01"
- X-Mms-MMS-Version: "1.0"
- From: not present (hidden)
- Subject: "MM for you"
- X-Mms-Content-Location: "http://mms-operator1/MMBox/ID-007-12345678"

- c) The user shall read the MMS notification stored on the USIM.
- d) The user shall retrieve the MM stored on the MMS Relay/Server used in step b).
- e) The user shall forward the MM to "[+0123456789](tel:+0123456789)" using the default MMS Issuer Connectivity Parameters stored on the USIM.
- f) A MM shall be sent to the terminal via the same MMS Relay/Server as in step b). This MMS Relay/Server shall then generate a notification to the Terminal's MMS User Agent. With the MM notification the MMS User Agent shall receive a message reference that can be used for retrieving the MM from this MMS Relay/Server.

The MM shall result in a MMS notification with the following predefined values:

- X-Mms Message Type: "m-notification-ind" (0x82)
- X-Mms-Transaction-ID: "02"
- X-Mms-MMS-Version: "1.0"
- From: "+0987123654"
- Subject: "Urgent MM"
- X-Mms-Content-Location: "http://mms-operator1/MMBox/ID-007-02468024"

- g) The user shall read the MMS notification stored on the USIM.
- h) The user shall reject the MM stored on the MMS Relay/Server used in step b).

8.3.4.5 Acceptance criteria

- 1) After step b) the MMS User Agent on the terminal shall have stored the MMS notification on the USIM with the values defined in step b) of 8.4.4.2, the associated status shall have been set to "Used space, notification not read, MM not retrieved" and the MMS User Agent shall indicate to the user that a MMS notification has been received.

- 2) After step c) the status of the MMS notification stored on the USIM shall have been set to "used space, notification read, MM not retrieved".
- 3) After step d) the MMS user agent shall have retrieved the MM from the MMS Relay/Server 1 and the status of the MMS notification stored on the USIM shall have either been set to "used space, notification read, MM retrieved" or the MMS notification shall have been deleted and the associated shall have been set to "Free space".
- 4) After step e) the terminal shall have read the set of MMS Issuer Connectivity Parameters stored first in EF MMSICP and shall have forward the MM to "+0123456789" using the MMS Relay/Server 1. The MMS notification shall have either been set to "used space, notification read, MM forwarded" or the MMS notification shall have been deleted and the associated shall have been set to "Free space".
- 5) After step f) the MMS User Agent on the terminal shall have stored the MMS notification on the USIM with the values defined in step f) of 8.4.4.4.2, the associated status shall have been set to "Used space, notification not read, MM not retrieved" and the MMS User Agent shall indicate to the user that a MMS notification has been received.
- 6) After step g) the status of the MMS notification stored on the USIM shall have been set to "used space, notification read, MM not retrieved".
- 7) After step h) the MMS user agent shall have not retrieved the MM from the MMS Relay/Server 1 and the status of the MMS notification stored on the USIM shall have either been set to "used space, notification read, MM rejected" or the MMS notification shall have been deleted and the associated shall have been set to "Free space".

Annex A (informative): Change history

The table below indicates all change requests that have been incorporated into the present document since it was initially approved by 3GPP TSG-T.

TSG # / Date	TSG Doc	Doc 2nd level	CR	Rev	Cat	Subject/Comment	New
TP-10	TP-000205					Final draft approved at TSG-T #10	3.0.0
TP-12	TP-010108		001		F	Correction of EF(UST) used in the Test USIM	4.0.0
			002		F	Correction of EF(ECC) used in the Test USIM	
			003		F	Correction to EF(HPLMN) regarding test USIMs	
			004		F	Deletion of a duplicated test case	
			005		F	Modification of EF ECC used in the Test USIM	
TP-16	TP-020117		007		F	Correction of tests using EF (USIM Service Table)	4.1.0
TP-17	TP-020215		008		A	Correction of coding of EF ACMMMax	4.2.0
			010		A	Correction of number of bytes of EF Keys	
			012	1	A	Definition of short message	
TP-18	TP-020286		015		A	Correction of PIN 2 related tests	4.3.0
			017		A	Essential clarifications	
			019		A	Correction of EF OPLMNwACT	
TP-19	TP-030028		021		A	File size correction	4.4.0
			023		A	Correction of PLMN coding	
TP-20	TP-030123		025		A	Correction of acceptance criteria	4.5.0
TP-21	TP-030184		027		A	Usage of 3G PDU definition for UEs accessing UTRAN	4.6.0
TP-23	TP-040028		029		F	CR 31.121 Rel-4: Essential Corrections	4.7.0
TP-24	TP-040338		031		A	Removal of EF_RPLMNACT and related tests	4.8.0
TP-24	TP-040340		033		A	Security related tests	4.8.0
TP-25	TP-040184		040		F	Correction of SMS related test cases	4.9.0
			038		A	Essential Corrections on section 7	
	TP-040184		043		B	Creation of MMS related tests	4.9.0
	TP-040184		035		A	Alignment with TS 51.010-1 on default EF-ADN configuration	4.9.0
	TP-040184		036		F	Essential Corrections on sections 2-6	4.9.0
	TP-040184		042		A	Correction of Access Control handling related test case TC 5.2.1.	4.9.0
TP-26	TP-040263		045		F	Correction of non specific references	4.10.0
TP-27	TP-050022	T3-050102	048		A	Correction of Operator controlled PLMN selector handling tests	4.11.0
TP-27	TP-050022	T3-050105	051		A	Correction to the 'Maximum frequency of ACM updating' test	4.11.0
TP-27	TP-050022	T3-050123	057		A	Correction of HPLMN Search Period tests	4.11.0
TP-27	TP-050022	T3-050156	054		A	Correction of verification of EF PSLOCI in section 7 "PLMN related tests":	4.11.0
CP-28	CP-050136	C6-050357	060		A	ISO/IEC 7816-series revision	4.12.0
CP-28	CP-050137	C6-050360	063		A	Correction of the content for Class 1 short messages in TC 8.2.1	4.12.0
CP-28	CP-050137	C6-050363	066		A	Essential correction of TC 8.1.2	4.12.0
CP-28	CP-050137	C6-050430	070		A	Deletion of BDN tests	4.12.0

History

Document history		
V4.0.0	July 2001	Publication
V4.1.0	June 2002	Publication
V4.2.0	September 2002	Publication
V4.3.0	December 2002	Publication
V4.4.0	March 2003	Publication
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V4.7.0	March 2004	Publication
V4.8.0	June 2004	Publication
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V4.10.0	December 2004	Publication
V4.11.0	March 2005	Publication
V4.12.0	June 2005	Publication